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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/568,702

Applicant(s)

QIAO ET AL.

Examiner

YOSIEF BERHANE

Art Unit

2419

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01/13/2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date: _____

DETAILED ACTION

1. Claims 1-8 have been examined and are pending.

Response:

On page 9 of Applicants Response, applicant remarks that claims 1-8 are pending in the instant application, which claims 6-8 have been added by a preliminary amendment (which was not examined in the first office action). Applicant requests full examination of all claims.

The examiner has now examined all claims (1-8) in the instant non-final office action.

On Page 11 of Applicant Response regarding claim 1-5 for Claim Rejections- 35 U.S.C 103, Applicant argument are persuasive but moot in view of the new grounds of rejection below.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the

conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

2. Claim 1 provisionally rejected on the ground of nonstatutory double patenting over claim 1 of copending Application No. 10/567136 and in further view of Patent 7,146,410 to Akman.

As per claim 1, a method for realizing signaling agent based on a media gateway control protocol, comprising providing an agent equipment (Claim 1 of copending application recites: method for realizing signaling agent in a network system, the network system comprising media gateways and a media gateway controller where a MEGACO protocol is adopted),

the agent equipment providing signaling agent and network address translation between different networks (claim 1 of Copending application recites: one agent equipment on a boundary of different networks where a MEGACO protocol is adopted between the media gateways and the media gateway controller, wherein the agent equipment has at least two network addresses. Note, the agent equipment on the boundary of different networks must translate the addresses between the different networks.);

and requesting for registering to the media gateway controller from a media gateway (Claim 1 of Copending application recites: a media gateway requesting be registered to the media gateway controller);

for a MGCP/MEGACO signaling sent from the media gateway to the media gateway controller, if not related to media between the media gateway controller and the media gateway (Claim 1 of Copending Application recites: for a MEGACO signaling that is unrelated to media stream ports of the media gateway),

The copending application is silent on: directly replacing a transaction number by the agent equipment and then forwarding;

However, in Fig. 2A, as well as Col. 4, lines 30-32, Akman discloses that a firewall/NAT (claimed agent equipment) inspects the Service Change message (claimed "not related to media") and changes the IP address of the MG from [10.12.2.2] to [175.17.4.1], thus replacing a

transaction number used to communicate commands between the media gateway and the media gateway controller

Therefore it would have been obvious to one of ordinary skill in the art to modify the system of the Copending Application by replacing a transaction number by the agent equipment and then forwarding the message as suggested by Akman. The benefit for the modification is to allow the agent equipment to translate network addresses between different networks.

if related to media, processing a media attribute correspondingly by the agent equipment and then forwarding (Claim 1 of Copending Application recites: for a MEGACO signaling that is related to the media gateway, the agent equipment processing media stream attributes correspondingly, and then forwarding);

for a MGCP/MEGACO signaling sent from the media gateway controller to media gateway (Fig. 2A, Akman discloses a media gateway exchanging MEGACO signaling messages with a media gateway controller),

sending the request message (Fig. 2A, box 240, Service Change Reply Message) to corresponding media gateway by the agent equipment according to domain name in endpoint identifier (Fig. 2A, Akman discloses a media gateway exchanging MEGACO signaling messages with a media gateway controller via an agent equipment. When the agent equipment receives the signaling messages, the agent equipment uses/stores appropriate Domain/Network address in order to route the signaling messages.).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1-4 and 6-7** are rejected under 35 U.S.C. 102(c) as being anticipated by Patent 7,146,410 filed on June 07, 2000 to Akman.

As per claim 1, Akman teaches a method for realizing signaling agent based on a media gateway control protocol, comprising providing an agent equipment (fig. 1A, box 160, Firewall/NAT router) between media gateways (Fig. 1A, box 130 and box 140) and a media gateway controller (Fig. 1A, box 110) that locate in different networks (Col. 1, lines 38-44, Akman discloses where a Network Address Translation (NAT) is strategically implemented to inspect and translate control protocol messages exchanged between nodes on separate IP networks, where the nodes are a media gateway controller, and a media gateway that exchange MEGACO messages),

the agent equipment providing signaling agent and network address translation between different networks (Col. 1, lines 38-44, Akman discloses where a Network Address Translation (NAT) is strategically implemented to inspect and translate control protocol messages exchanged between nodes (thus acting as a signaling agent) where the nodes are a media gateway controller, and a media gateway that exchange MEGACO messages);

and requesting for registering to the media gateway controller from a media gateway (Col. 4, lines 18-24, Akman discloses that In the MEGACO protocol, when an MG becomes available, it registers itself with its MGC using a Service Change message. Note; the Service Change message is a request message sent from the media gateway in order to be registered with the media gateway controller. Also, Fig 2A, shows a media gateway registering with a media gateway controller);

for a MGCP/MEGACO signaling sent from the media gateway to the media gateway controller (Fig. 2A, Akman discloses a media gateway exchanging MEGACO signaling messages with a media gateway controller),

if not related to media between the media gateway controller and the media gateway (Fig. 2A, box 240, Akman discloses "Service Change" reply message, which is a signaling command, not related to media streams.),

directly replacing a transaction number by the agent equipment and then forwarding (Fig. 2A, as well as Col. 4, lines 30-32, Akman discloses that a firewall/NAT (claimed agent equipment) inspects the Service Change message (claimed "not related to media") and changes the IP address of the MG from [10.12.2.2] to [175.17.4.1], thus replacing a transaction number used to communicate commands between the media gateway and the media gateway controller);

if related to media (col. 3, lines 19-29, Akman discloses that a MEGACO signaling that is used by a Media Gateway Controller to control at least one Media Gateway, where the Media Gateway includes "terminations", which are used for sending/receiving media streams, in which the media stream parameter are encapsulated with in the termination. See Section 6 and 6.2 of RFC 3015 "MEGACO Protocol" for details of terminations),

processing a media attribute correspondingly by the agent equipment and then forwarding (Col. 4, lines 61-67 and Col. 5, lines 1-34, Akman discloses a media gateway and a media gateway controller exchanging MEGACO protocol messages during an IP telephony call, where a firewall/NAT routes all of the messages between the devices according to domain/network/IP addresses (claimed media attribute). Note; MEGACO messages during an IP telephony call include “terminations”, which are used to establish media streams. See section 6 and 6.2 of RFC 3015 for further details of terminations.);

for a MGCP/MEGACO signaling sent from the media gateway controller to media gateway (Fig. 2A, Akman discloses a media gateway exchanging MEGACO signaling messages with a media gateway controller),

sending the request message (Fig. 2A, box 240, Service Change Reply Message) to corresponding media gateway by the agent equipment according to domain name in endpoint identifier (Fig. 2A, Akman discloses a media gateway exchanging MEGACO signaling messages with a media gateway controller via an agent equipment. When the agent equipment receives the signaling messages, the agent equipment uses/stores appropriate Domain/Network address in order to route the signaling messages.).

As per claim 2, Akman teaches wherein each of all media gateways under control of same media gateway controller has different domain name (Fig. 1A, Akman discloses where two Media Gateways under the control of a Media Gateway Controller have different domain names),

each endpoint identifier includes domain name information of a media gateway (Fig. 1A, discloses that each Media Gateway are identified by a domain name. By way of example, box 140 of fig. 1A discloses a Media Gateway identified as 10.12.2.2),

and the media gateway controller distinguishes media gateways according to their domain names in the endpoint identifiers (Col. 3, lines 19-25, Akman discloses that MEGACO is a control protocol that is used by a Media Gateway Controller (MGC) to control at least one Media Gateway (MG). MG's include resources (terminations) that can be identified by IP addresses. When an MGC communicates with an MG using MEGACO, the MEGACO messages carry IP addresses corresponding to specific resources within the MG.).

As per claim 3 and 6, Akman teaches wherein the step of requesting for registering to the media gateway controller from a media gateway further comprises: sending a request message for registering to the media gateway controller from the media gateway (fig. 2A, Akman discloses that In the MEGACO protocol, when an MG becomes available, it registers itself with its MGC using a Service Change message. Note; the Service Change message is a request message sent from the media gateway in order to be registered with the media gateway controller),

and recording message identifier of the media gateway received by the agent equipment to generate a piece of information about the media gateway (Fig. 2A, Akman discloses a procedure for a media gateway registering with a media gateway controller. The register request is received by the agent equipment (box 160, Firewall/NAT) which stores (box 220) the Domain

and IP address of the media gateway (box 140) in a table. Also, the Firewall/NAT has a port on the first IP network that links to the media gateway);

assigning by the agent equipment a new transaction number to the request message for registering to replace original transaction number in the request message for registering (Fig. 2A, when box 140 "MG" (claimed media gateway) sends a request message, box 160 "the firewall/NAT" (claimed agent equipment), changes the IP address of the MG from [10.12.2.2] to [175.17.4.1], thus assigning a new transaction number),

recording the media gateway sending the request (Fig. 2A, firewall/Nat stores the change of IP addresses in a NAT table, thus recording the sending media gateway),

and then forwarding the request message for registering to the media gateway controller (Fig. 2a, "a service change message" (claimed request message) is sent from a media gateway, translated by a firewall/NAT and then forwarded to the media gateway controller);

registering the media gateway successfully , and then sending a response message for registering to the media gateway from the media gateway controller (Col. 4, lines 37-41, Akman discloses that the firewall/NAT relays a service change reply message sent by the media gateway controller to complete the registration);

and determining the media gateway by the agent equipment according to the new transaction number in the response message for registering (Col. 4, lines 37-41, Akman discloses that a firewall/NAT relays a response message to the media gateway at address [10.12.2.2] which was translated as address [175.17.4.1], which the firewall/NAT stored in the NAT table when the request message was sent. Thus, the firewall/NAT determines the media gateway based on the translated address, which is the new transaction number),

replacing the new transaction number with the original transaction number (Col. 4, lines 37-41, Akman discloses that a firewall/NAT relays a response message to the media gateway at address [10.12.2.2], thus the firewall/NAT will translate the address back to the original address), and then forwarding the response message for registering to corresponding media gateway (Col. 4, lines 37-41, Akman discloses that the firewall/NAT relays a service change reply message sent by the media gateway controller to complete the registration).

As per claim 4 and 7, Akman teaches wherein the step of replacing a transaction number by the agent equipment further comprises (in Fig. 2A, as well as Col. 4, lines 30-32, Akman discloses that a firewall/NAT (claimed agent equipment) inspects the Service Change message and changes the IP address of the MG from [10.12.2.2] to [175.17.4.1], thus replacing a transaction number used to communicate commands between the media gateway and the media gateway controller):

for each of request messages sent from the media gateway to the media gateway controller (Fig. 3A, box 140 "MG" (claimed media gateway) sends Notify/Modify (claimed request message) to box 110 "MGC" (claimed media gateway controller)),

assigning a new transaction number for a request message by the agent equipment (Fig. 3A, box 160 "firwall/NAT" (claimed agent equipment) changes address from [10.12.2.2] to [175.17.4.1], thus assigning a new transaction number for a request message.),

and recording the media gateway sending the request message (Col. 5, lines 21-23, Akman discloses that the NAT functionality in the firewall creates and maintains a NAT table that links addresses in the 10.X.X.X domain and the (175.X.X.X) domain.);

after receiving on the agent equipment a response message for the request message sent by the media gateway controller (Fig. 3a, media gateway sends reply message for request messages sent by the media gateway),

finding a corresponding media gateway according to a new transaction number assigned (Col. 5, lines 21-23, Akman discloses that the NAT functionality in the firewall creates and maintains a NAT table that links addresses in the 10.X.X.X domain and the (175.X.X.X) domain. Note, the media gateway resides on domain 10.X.X.X, which is linked by the firewall/NAT to exchange messages between corresponding media gateway and media gateway controller.),

replacing the new transaction number in the response message with original transaction number (Col. 5, lines 21-23, Akman discloses that the NAT functionality in the firewall creates and maintains a NAT table that links addresses in the 10.X.X.X domain and the (175.X.X.X) domain. Thus, when the media gateway controller responds to the media gateway at the translated source address 175.17.4.1, the firewall/NAT will link that address to the media gateway at address 10.12.2.2),

and then forwarding the response message to the corresponding media gateway (fig. 3a, firewall/NAT relays response messages to the media gateway)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be

patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 5 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Akman as applied to claims 1-4 and 6-7 above, and further in view of Non Patent Literature "RFC 3015-Megaco Protocol Version 1.0" (hereinafter RFC 3015) published November, 2000 by the Network Working Group.

As per claim 5 and 8, Akman teaches wherein the step of processing a MGCP/MEGACO signaling that is related to media by the agent equipment further comprises (Fig. 3a, Akman discloses signaling included in an IP telephony (claimed media) call.):

creating or modifying a corresponding media forwarding port and a forwarding table on the agent equipment (Fig. 3A, Akman discloses the agent equipment having two ports (claimed forwarding port) on different IP networks for forwarding messages. Furthermore, fig. 3a discloses a firewall/NAT with stored IP and Domain addresses (claimed forwarding table))

after receiving a signaling for establishing or modifying a connection sent to a media gateway from the media gateway controller, replacing relevant information on media in the signaling with information on corresponding network address of the media forwarding port on the agent equipment (Col. 4, lines 61-67, as well as Col. 5, lines 6-34, Akman discloses. For the signaling messages traversing back and fourth between the devices, the firewall/NAT creates and maintains a NAT table that links/translate addresses in the first IP address to the second IP

address, thus adding/replacing appropriate addressing information in the message to route the data accordingly.),

and then forwarding the signaling to the media gateway (Col. 4, lines 61-67, as well as Col. 5, lines 6-34, Akman discloses an example of a basic IP telephony call, where signaling messages are exchanged between an MG and an MGC using the firewall as a MEGACO NAT device. The firewall/NAT routes the signaling messages back and fourth between the media gateway and the media gateway controller);

if the signaling is a signaling for creating a connection (Fig. 3a, box 345, media gateway controller signals an "ADD" message to the media gateway, As disclosed by "Media Gateway Control Protocol", an ADD message is used to create contexts (group of connections for media streams). Refer to Section 7, entitled commands of RFC 3015),

further recording on the agent equipment an endpoint identifier of the connection (Fig. 3a, box 345 "ADD" message is sent to the media gateway along with the domain and IP address of the Media gateway controller (claimed endpoint identifier)),

modifying the forwarding table of a corresponding media forwarding port on the agent equipment according to a response signaling (Col. 5, lines 35-47, Akman discloses where the replay message is received into the firewall/NAT and a NAT IP address substitution takes place ensuring that the message reaches the MGC with the appropriate IP and Domain address)

when the media gateway sends the media gateway controller the response signaling related to media (Fig. 3a, box 355, media gateway sends a "reply to add" message to for establishing an IP telephony connection.);

replacing media information in the response signaling with information on network address of corresponding media port on the agent equipment (Col. 5, lines 35-47, Akman discloses where the replay message is received into the firewall/NAT and a NAT IP address substitution takes place ensuring that the message reaches the MGC with the appropriate IP and Domain address.),

and then sending to the media gateway controller (Col. 5, lines 35-47, Akman discloses where the replay message is received into the firewall/NAT and a NAT IP address substitution takes place ensuring that the message reaches the MGC, thus the reply message is forwarded to the media gateway controller);

Although Akman discloses an example of a basic IP telephony call, where signaling messages are exchanged between a corresponding Media Gateway and a Media Gateway Controller by a corresponding media forwarding port on the agent equipment according to endpoint identifier (fig. 3a, Akman),

Akman is silent on: sending a signaling for releasing the connection to the media gateway.

However, "RFC 3015" discloses in section 7 that a subtract command disconnects a termination from its context. The subtract command on the last termination in a context deletes the context, thus a media gateway controller will send a subtract command to a media gateway to end/release a media stream.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of Akman by using signaling such as a subtract command to end/release a media stream, as suggested by "RFC 3015". The modification would benefit the

system by allowing endpoints to reliably disconnect a termination such as an IP telephony phone call.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yosief Berhane whose telephone number is (571) 270-7164. The examiner can normally be reached at 9:00-6:00 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached at (571) 272-3787. The fax phone number for the organization where this application or proceeding is assigned is 571-272-7493.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/YOSIEF BERHANE/
Examiner, Art Unit 2419

/Wing F. Chan/
Supervisory Patent Examiner, Art Unit 2419
2/12/09